

Fig. 1

Fig. 2

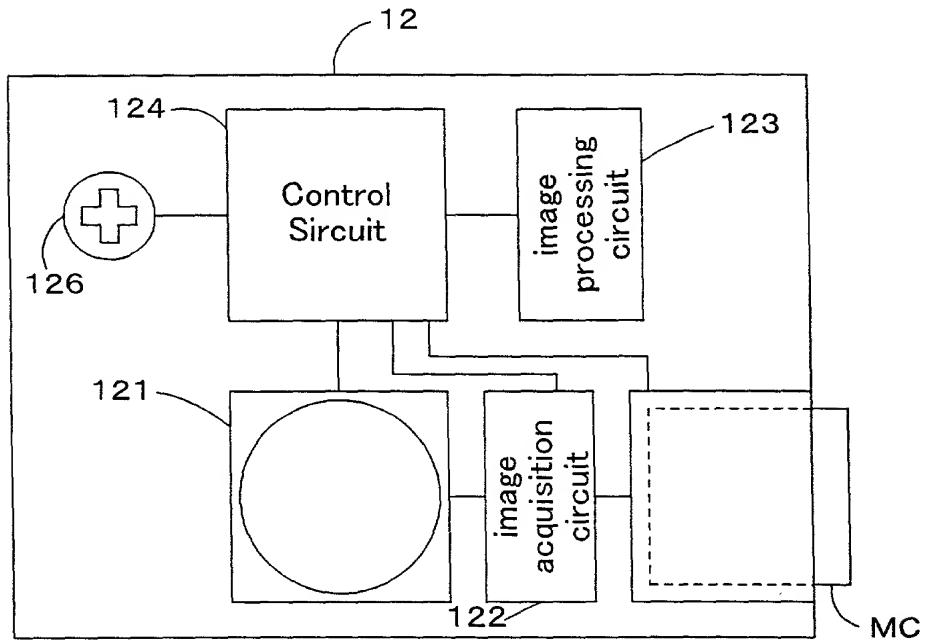


Fig. 3

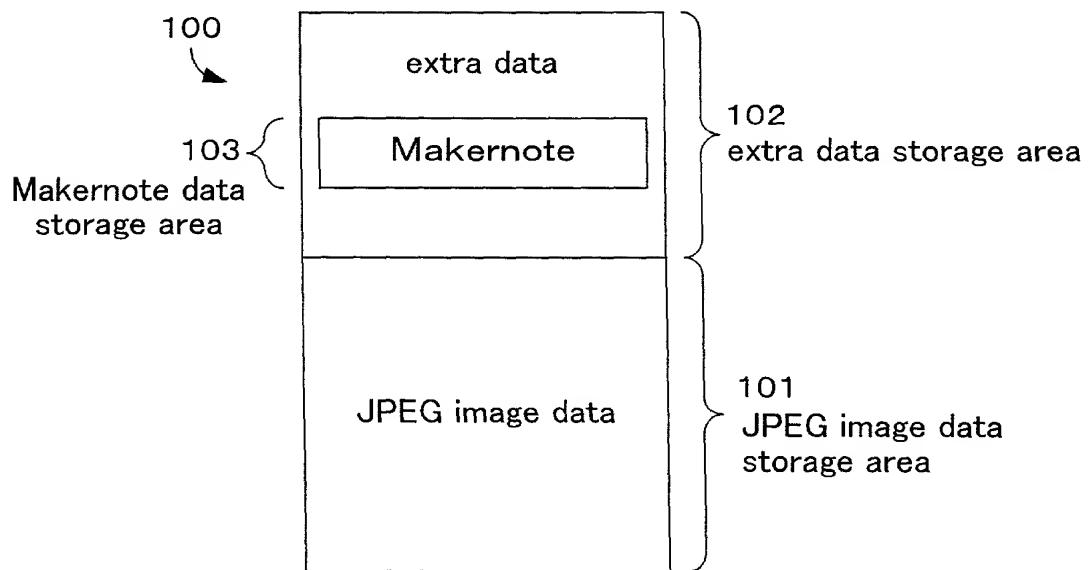


Fig. 4

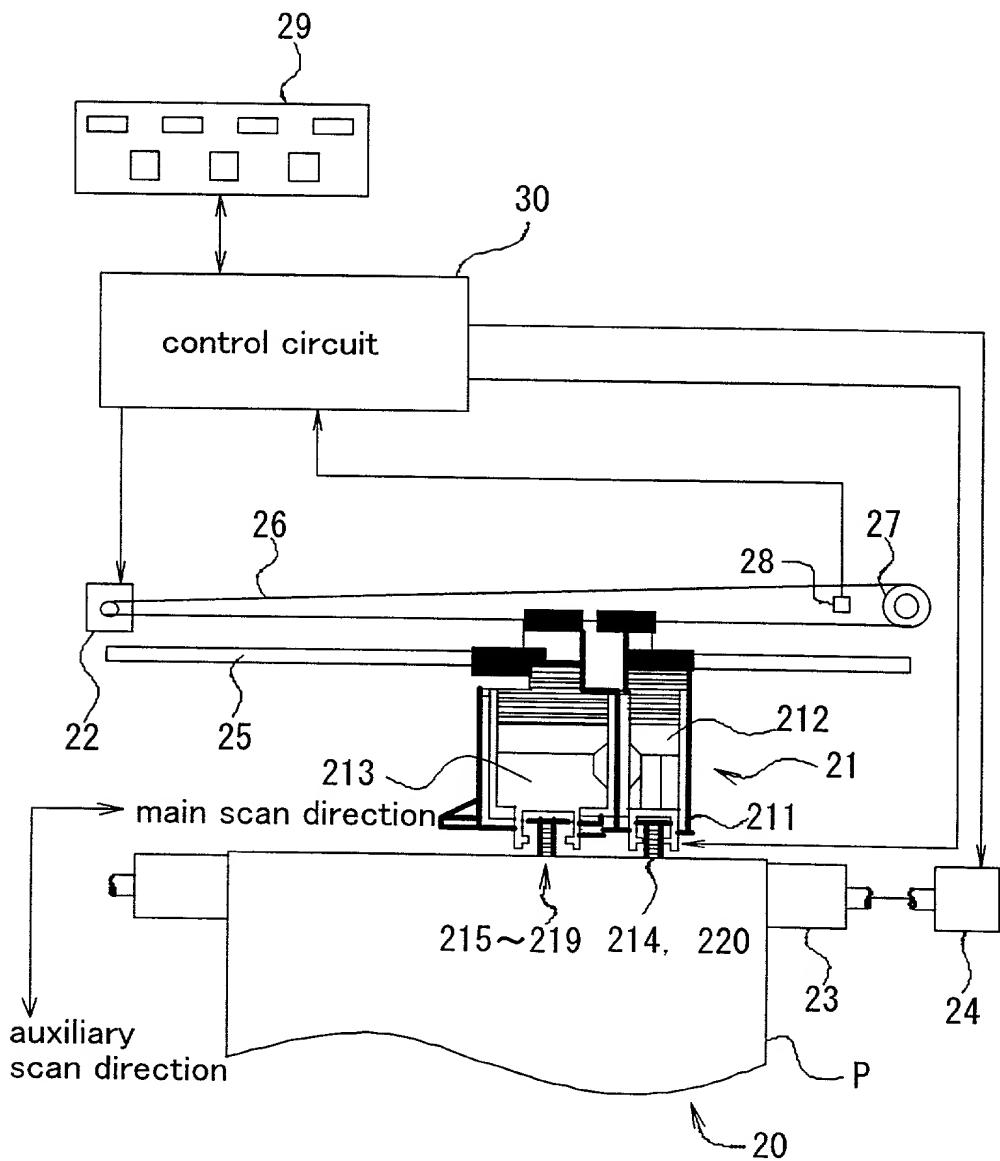


Fig. 5

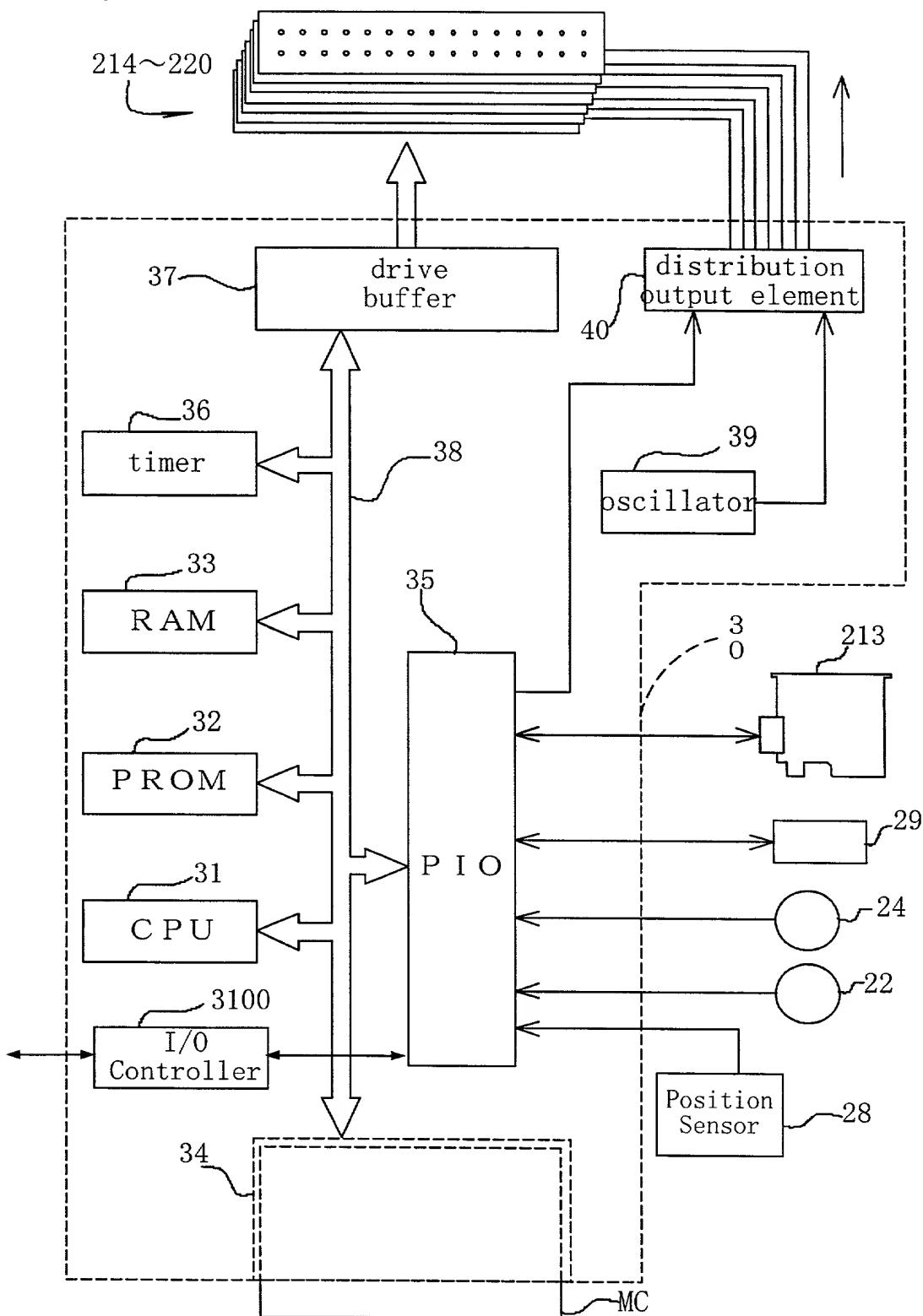


Fig. 6

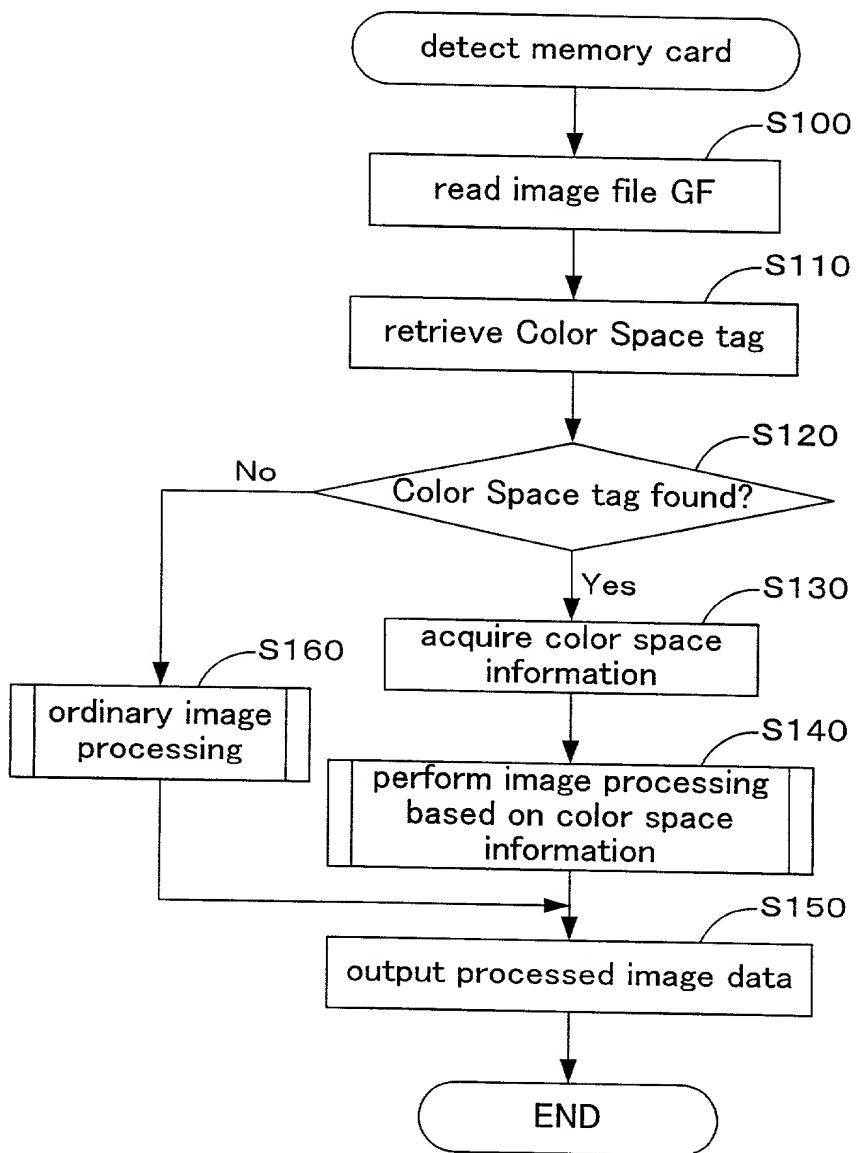


Fig. 7

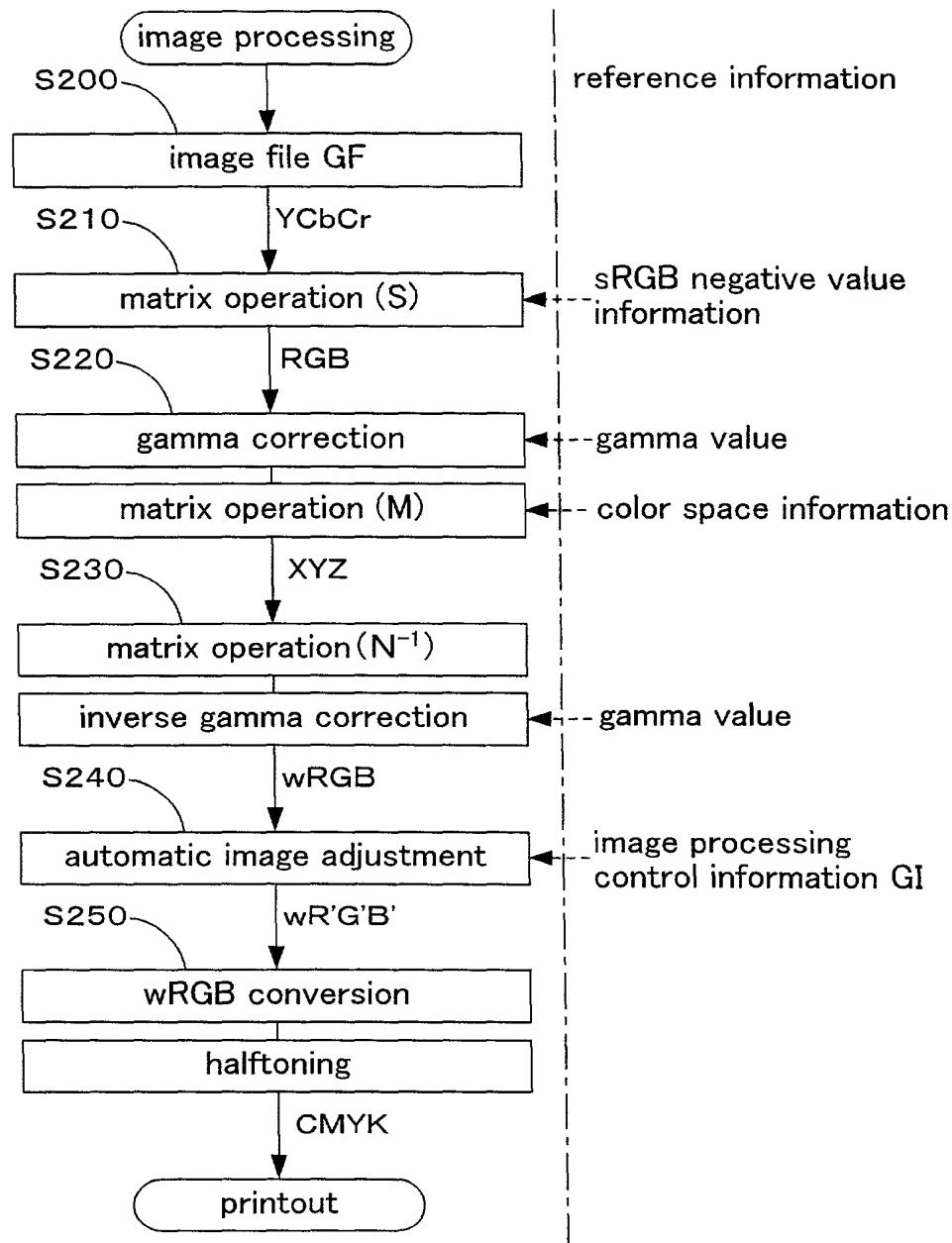


Fig. 8

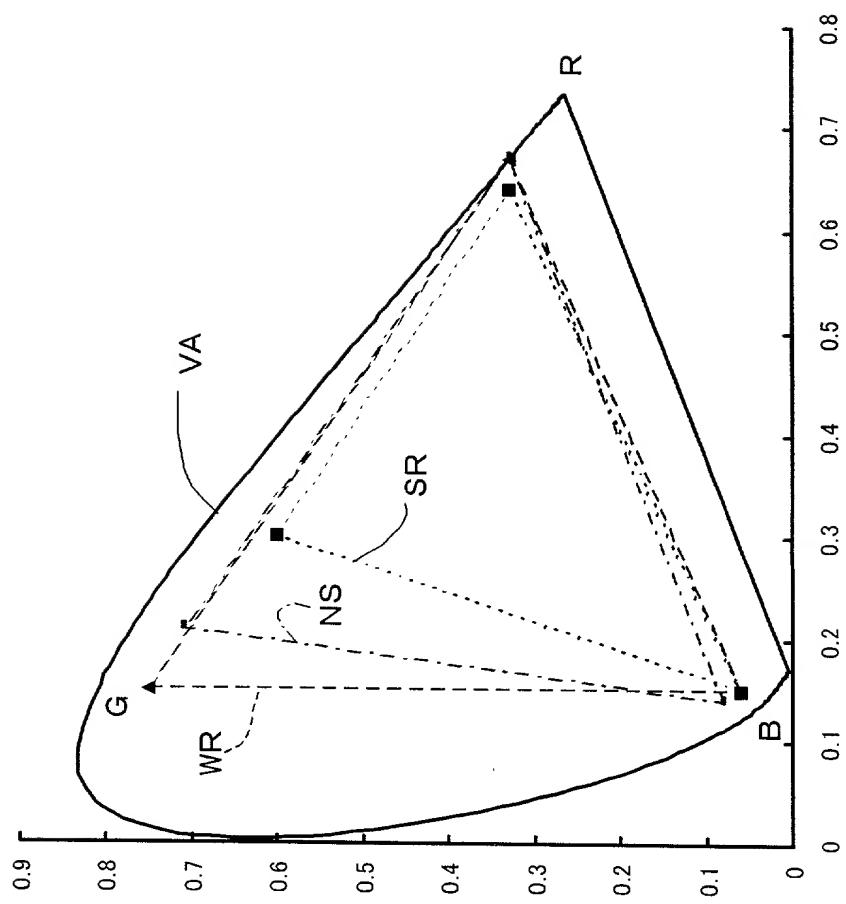


Fig. 9

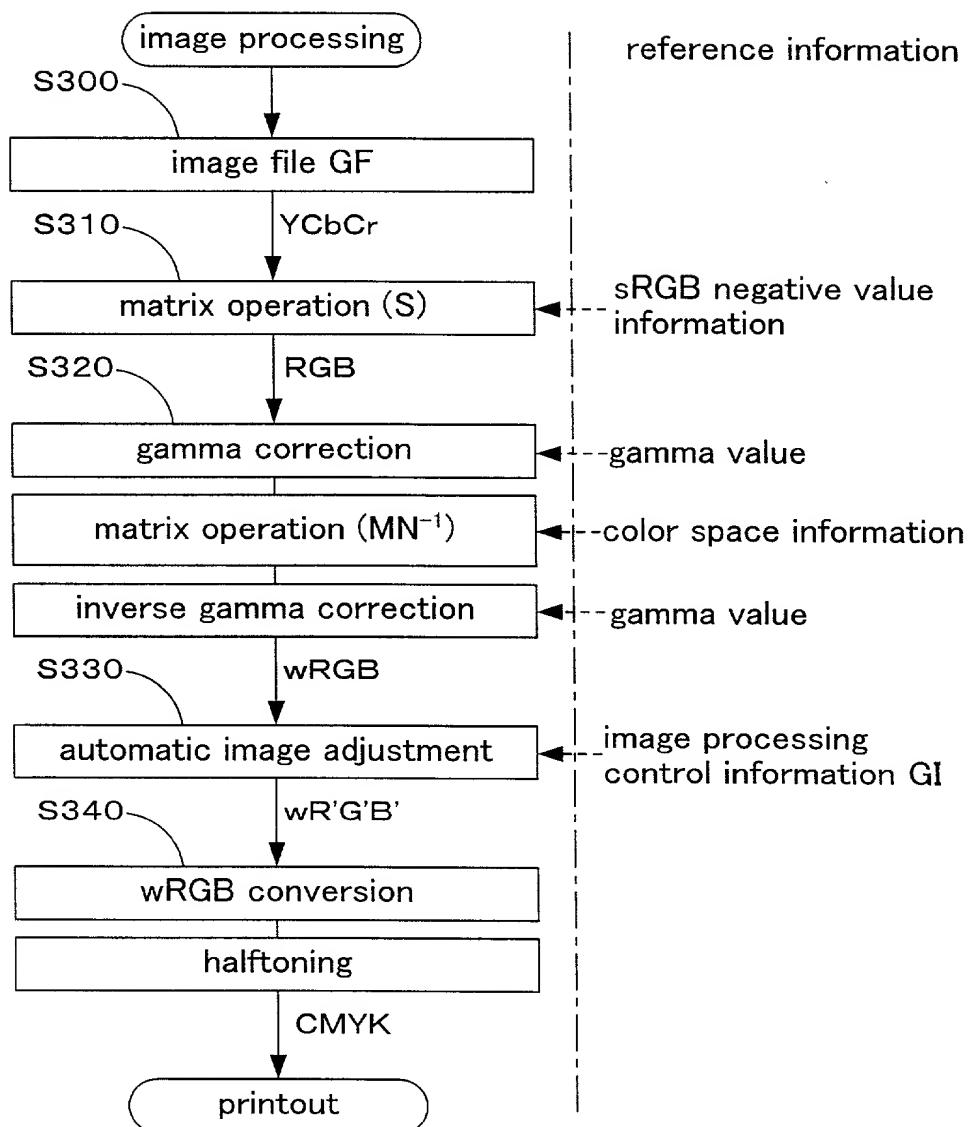


Fig. 10

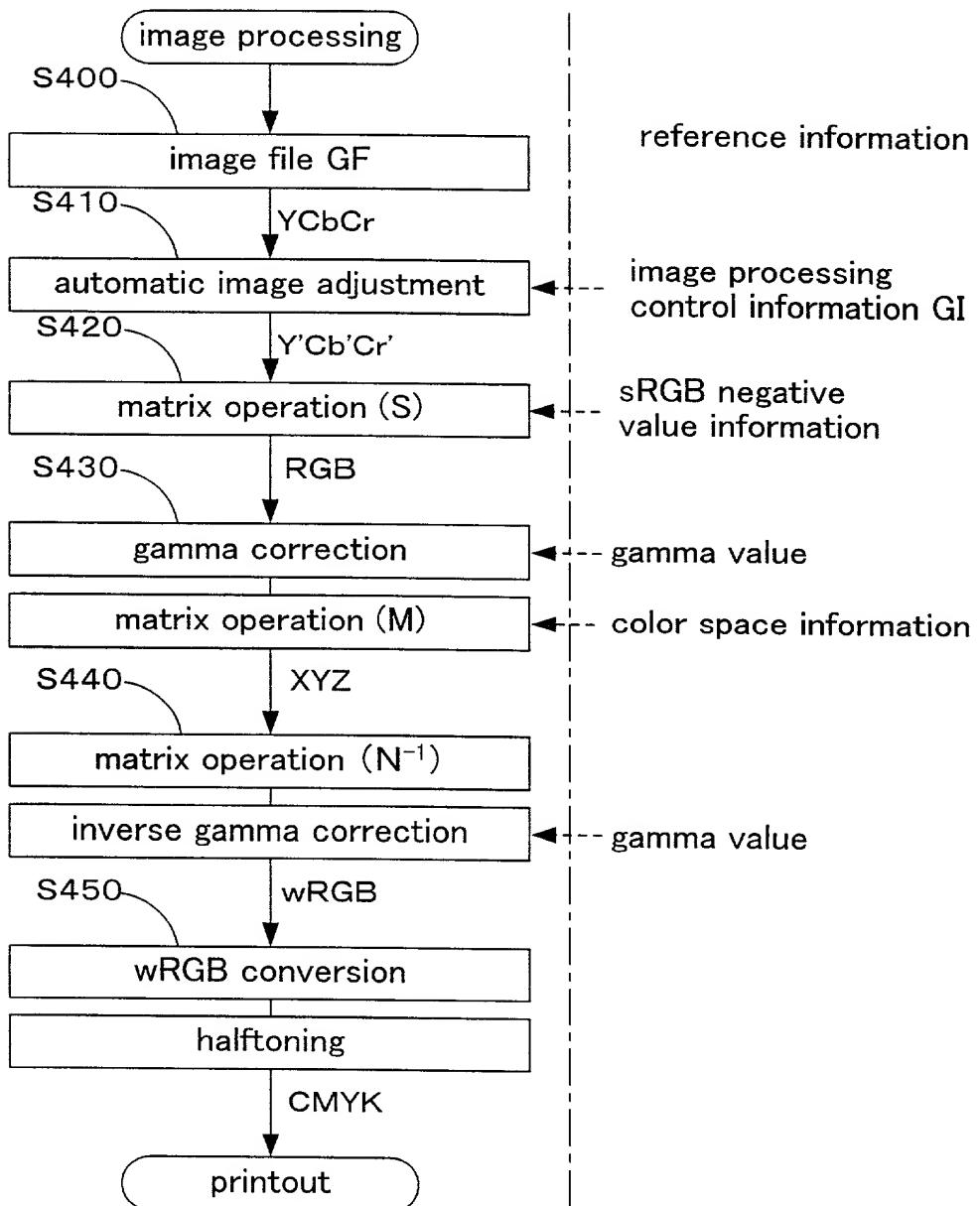


Figure 11

$$\begin{pmatrix} R \\ G \\ B \end{pmatrix} = \mathbf{S} \begin{pmatrix} Y \\ Cb - 128 \\ Cr - 128 \end{pmatrix}$$

$$\mathbf{S} = \begin{pmatrix} 1 & 0 & 1.40200 \\ 1 & -0.34414 & -0.71414 \\ 1 & 1.77200 & 0 \end{pmatrix}$$

Figure 12

$$\begin{pmatrix} X \\ Y \\ Z \end{pmatrix} = \mathbf{M} \begin{pmatrix} Rt' \\ Gt' \\ Bt' \end{pmatrix} \quad \mathbf{M} = \begin{pmatrix} 0.6067 & 0.1736 & 0.2001 \\ 0.2988 & 0.5868 & 0.1144 \\ 0 & 0.0661 & 1.1150 \end{pmatrix}$$

$$Rt, Gt, Bt \geq 0$$

$$Rt' = \left( \frac{Rt}{255} \right)^{\gamma} \quad Gt' = \left( \frac{Gt}{255} \right)^{\gamma} \quad Bt' = \left( \frac{Bt}{255} \right)^{\gamma}$$

$$Rt, Gt, Bt \leq 0$$

$$Rt' = -\left( \frac{-Rt}{255} \right)^{\gamma} \quad Gt' = -\left( \frac{-Gt}{255} \right)^{\gamma} \quad Bt' = -\left( \frac{-Bt}{255} \right)^{\gamma}$$

Figure 13

$$\begin{pmatrix} R_{\mathcal{E}} \\ G_{\mathcal{E}} \\ B_{\mathcal{E}} \end{pmatrix} = \mathbf{N}^{-1} \begin{pmatrix} X \\ Y \\ Z \end{pmatrix}$$

$$\mathbf{N}^{-1} = \begin{pmatrix} 3.30572 & -1.77561 & 0.73649 \\ -1.04911 & 2.1694 & -1.4797 \\ 0.0658289 & -0.241078 & 1.24898 \end{pmatrix}$$

$$R_{\mathcal{E}}' = \left( \frac{R_{\mathcal{E}}}{255} \right)^{1/\gamma} \quad G_{\mathcal{E}}' = \left( \frac{G_{\mathcal{E}}}{255} \right)^{1/\gamma} \quad B_{\mathcal{E}}' = \left( \frac{B_{\mathcal{E}}}{255} \right)^{1/\gamma}$$